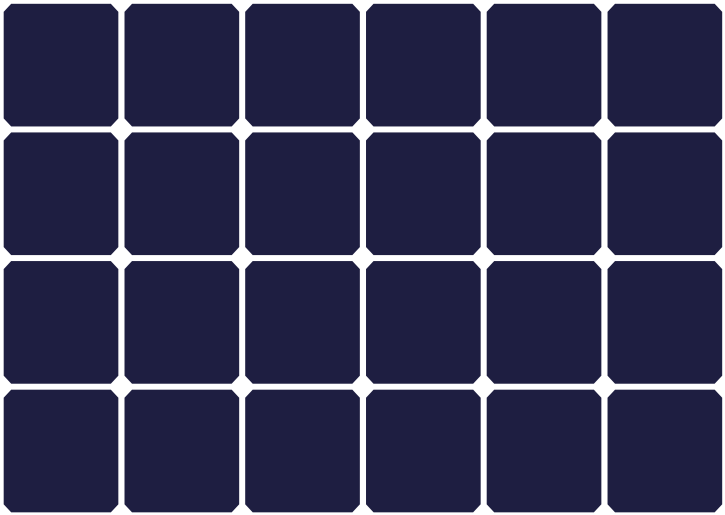


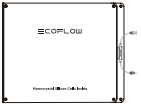
ECOFLOW
SOLAR PANEL

Contact Us:
ecoflow.com

NA/LA/APAC/MEA: support@ecoflow.com
EU: support.eu@ecoflow.com
AU: support.au@ecoflow.com

In The Box

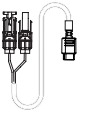
Protective Case and kickstand



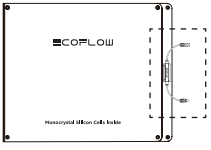
Solar Panel

Snap Hook x 4

User Manual & Warranty Card

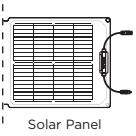


Solar Charging Cable



MC4 Output Controller

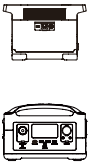
How It Works



Solar Panel

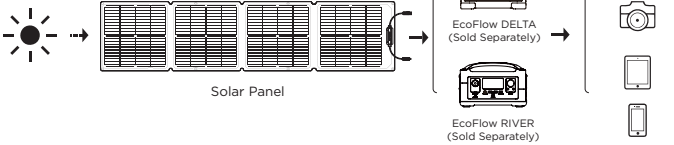
Solar Charging Cable

XT60 INPUT PORT



EcoFlow DELTA (Sold Separately)

EcoFlow RIVER (Sold Separately)



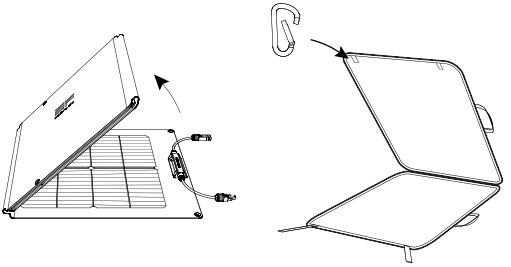
Solar Panel

EcoFlow DELTA (Sold Separately)

EcoFlow RIVER (Sold Separately)

Your Solar Setup

1



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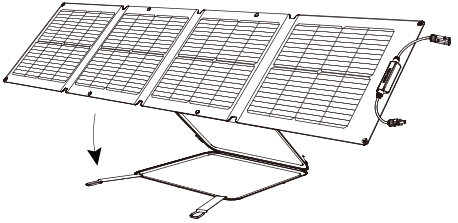

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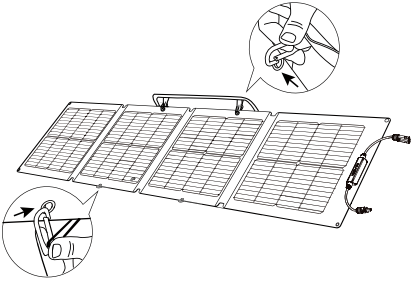

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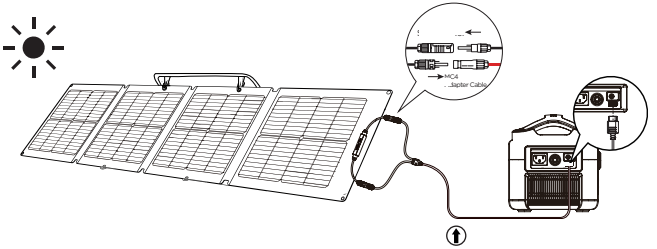
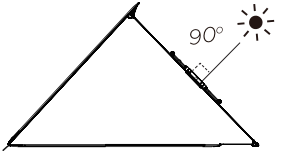


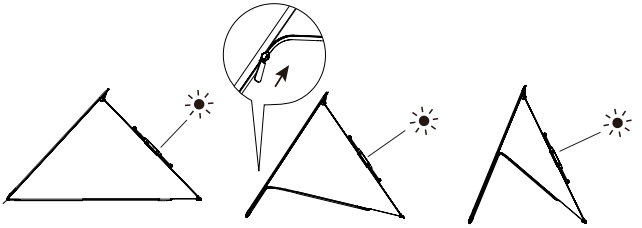
This cable can only be used for connection between solar panels and energy storage. It is prohibited to be used for interconnection between solar panels or other connection purposes.

5



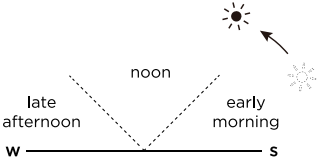
To harvest solar energy most efficiently, try to ensure that the sun's rays hit the panel at a 90° angle and that the panel is not shaded.

6 Adjust The Angle By Shooting



For improved charging results, the Protective Case can also be used as a kickstand to prop up the solar panel at a 25°–80° angle.

7

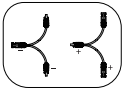


The kickstand feature should only be used before 10:00 am or after 2:00 pm. To use the product during the midday sun, simply place the solar panel flat on the ground.

Speed Up Solar Charging

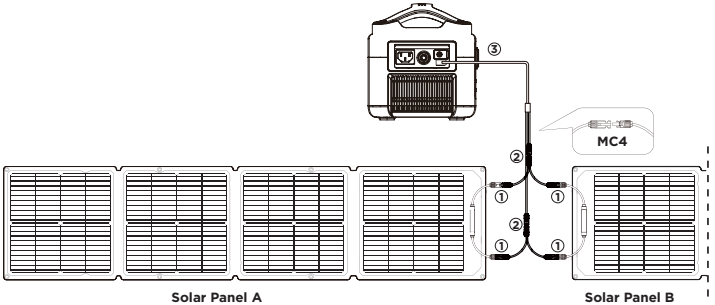
Wire solar panels in parallel
(refer to the figure below)

1. Connect the positive poles of the two solar panels with the MC4 parallel cable and repeat the step for the negative poles.
2. Connect the parallel cable connectors (output side) with the MC4 connectors of the Solar Charging Cable (MC4 to XT60 cable) respectively.
3. Connect the XT60 connector on the Solar Charging Cable(MC4 to XT60 cable) to the XT60 port on the portable power station to recharge the unit.



Solar MC4 parallel connection cable
* Users have to buy the solar panels and other parallel connection accessories seperately.

*For more information and methods about solar charging,please refer to the user manual of the specific portable power station.



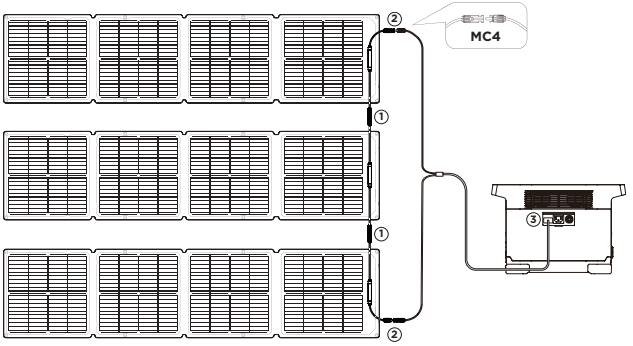
Wire solar panels in series
(refer to the figure below)

1. Snap the male connector of one solar panel into the female connector of the other respectively to wire the three solar panels in series.
2. Wire the two connectors that are unwired in step 1 with the Solar Charging Cable (MC4 to XT60 cable) respectively.
3. Connect the XT60 connector on the Solar Charging Cable (MC4 to XT60 cable) to the XT60 port on the portable power station to recharge the unit.

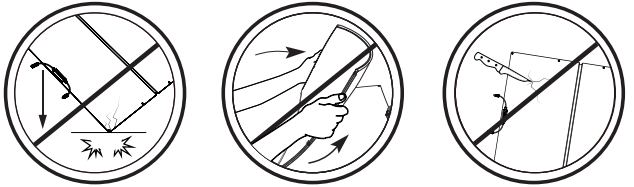
*For more information and methods about solar charging,please refer to the user manual of the specific portable power station.

Max. No. Of Panels Connected in Series to Supported Products

Supported Product	110W
RIVER mini	1
RIVER Series	1
DELTA mini	3
DELTA	3
DELTA Max	4
DELTA Pro	6



Avoid



Behaviors above that demage the solar panel, will cause the cell inside the solar panel to crack and efficiency drop, or even unusable. The free warranty period does not cover damage resulting from improper use of the product.

Things to Remember When Using Solar Panel

1. As the efficiency of solar panels depends upon light intensity and the tilt angle used, the charging power of the panel may be affected by a number of factors such as weather conditions, seasonal changes and location. The installation and connection of this product should be carried out strictly in accordance with the instructions found in the User Manual.

2. Only the main body of this product is waterproof. The junction box and connection points should not be immersed in water.

3. This product must not come into contact with highly corrosive substances, or be immersed in corrosive liquids.

4. To avoid damaging the product, do not use sharp objects on the surface of the panel, and do not knock or impact the product.

5. Do not apply pressure to the panel or allow the panel to be dropped on any of its corners, sides or faces. Such actions may result in damage to the solar panel.

6. The panel must not be knocked, exposed to heavy pressure, or bent during transport, rotation or installation. We recommend that the panel is kept in a vertical position when being moved or stored.

7. When storing the panel, always ensure that the positive and negative terminals of the junction box are not exposed to sunlight.

8. To avoid the risk of injury, this product and its junction box must only be opened or disassembled by qualified personnel.

9. Unwanted solar panels must be disposed of in accordance with the local legal requirements.

FAQs

Does the 110W Solar Panel generate a full 110W of power?

In most cases, it is normal for a solar panel not to deliver its full nominal power. Some of the reasons why this happens, as well as some suggestions for getting closer to the nominal power figure, are given below.

1. **Light Intensity.** The amount of light shining on the panel will result in fluctuations to the power output. You are more likely to achieve nominal power output figures closer to those obtained under test conditions when using the product on a clear day during the midday sun, than when using the product in the morning or later in the afternoon. Weather conditions will also affect the amount of sunlight that shines on the panel. For example, you are much less likely to achieve the figures for nominal power in hazy, cloudy or rainy conditions.
2. **Surface Temperature.** The temperature of the solar panel surface will also affect the amount of power generated. The lower the surface temperature of the panel, the more power will be produced. For example, solar panels generate more power when used during the winter than during the summer, and this is completely normal. Solar panels generally reach temperatures close to 60°C (140°F) during summer. This reduces nominal power by 13%, despite the higher levels of light shining on the panel.
3. **Sunlight Angle.** In optimal light conditions, the sun's rays should remain perpendicular to the surface of the panel for best performance. The difference of ± 10 degrees of 90 degrees of sunlight hitting the panels has little effect on the power.
4. **Panel Shading.** The surface of the solar panel should not be shaded during use. Shading caused by shadows, foreign objects and glass can all greatly reduce power output.

Performance Issues Caused by Malfunctioning Panels: If the panel still isn't generating power or its output remains far below expected nominal power figures after addressing the issues above, there may be an issue with the panel itself. Please contact Customer Support for assistance.

How much power can the 110W Solar Panel generate under normal conditions?

This depends first and foremost on weather conditions. Generally speaking, on a clear day with no clouds in the sky, sunlight hitting the panel at a 90° angle usually generates 80W–90W of power in the 110W panel. (Current light conditions are normally 800W–900W/m^2 (74.3W–83.6W/ft^2) with a panel temperature of 50°C (122°F) under test conditions. Nominal power ratings are based on 1000W/m^2 (92.9W/ft^2) in AM1.5 conditions with a panel temperature of 25°C (77°F) under test conditions. Power output figures close nominal values were normally observed in the midday sun during the winter.)

What should I know about the operating temperature, storage and use of the 110W Solar Panel?

The operating temperature of the Solar Panel is -20°C–85°C (-4°F–185°F). The panel should be folded into its original shape and stored in its Protective Case (Kickstand), which provides sufficient protection for the product. To extend the service life of the panel, ensure that the product is not exposed to external forces/impacts when not in use. **The solar panel must not be dropped, pierced, bent, or sat on. These actions may break the cell and render the panel unusable. Any such damage will not be covered by the free warranty.**

Can I use non-EcoFlow branded power stations with the 110W Solar Panel?

Yes, but only certain types. The power station used must be compatible with MC4 standards in order to work properly. In addition, other brands of power station may not offer the same levels of compatibility as EcoFlow-branded power stations, may have lower nominal power ratings, and may not offer the same levels of performance.

Can I connect 110W Solar Panels with another size of solar panels in series?

Yes, but this is not recommended. Even if the voltage of the two panels are identical, the current ratings are not. This means that when the panels are connected in series, the current will be limited to that of the lower solar panel which cause the power of 110W solar panel can't be released entirely, resulting in a 1+1<2 scenario. Please purchase panels of the same size if you intend to connect multiple panels in series.

Can I connect 110W Solar Panels in parallel?

Yes, but this is not recommended. Parallel connections will double the total current of the input power. 110W solar panels can be connected in parallel, but the current may exceed the input current limitation of the power station. Only two 110W panels should be used in parallel connection.
If you want to connect more than two 110W panels with parallel connection, ensure the maximum solar input current of your power station is higher than 20A.

FCC STATEMENT

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:
(1) This device may not cause harmful interference, and
(2) This device must accept any interference received, including interference that may cause undesired operation.
Warning: Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.
NOTE: This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

Technical Specifications

110W Solar Panel
Rated Power: 110 W(+/-5 W)*
Open Circuit Voltage: 21.8 V
Running Voltage: 18.4 V
Short Circuit Current: 6.5 A
Running Current: 6.0 A
Efficiency: 22.8 %
Cell Type: Monocrystalline silicon
Connector type: MC4
General
Solar Panel: Approximately 8.8 lbs (4 KG)
Unfolded Dimensions: 16.5*70.3*1.0 in(42.0*178.5*2.5 cm)
Folded Dimensions: 16.5*18.9*1.0 in(42.0*48*2.5 cm)
Warranty: 12 months
Tested And Certified
IP68

*Standard Test Conditions:1000 W/m², AM1.5, 25°C

Temperature Coefficient Specifications

TKPower **-(0.39±0.02)%/k**

TKVoltage **-(0.33±0.03)%/k**

TKCurrent **+(0.06±0.015)%/k**